EXHIBIT 300   **UII 026-000001501**

Exhibit 300: Capital Asset Summary

Part I: Summary Information And Justification (All Capital Assets)

Section A: Overview & Summary Information

Date Investment First Submitted: 2009-06-30
Date of Last Change to Activities: 2011-10-27
Investment Auto Submission Date: 2012-02-24
Date of Last Investment Detail Update: 2012-08-31
Date of Last Exhibit 300A Update: 2012-08-31
Date of Last Revision: 2012-08-31

Agency: 026 - National Aeronautics and Space Administration   **Bureau:** 00 - Agency-Wide Activity

Investment Part Code: 01

Investment Category: 00 - Agency Investments

1. Name of this Investment: NASA Earth Observing System Data Information System (EOSDIS)

2. Unique Investment Identifier (UII): 026-000001501

Section B: Investment Detail

1. **Provide a brief summary of the investment, including a brief description of the related benefit to the mission delivery and management support areas, and the primary beneficiary(ies) of the investment. Include an explanation of any dependencies between this investment and other investments.**

    NASA Earth Observing System Data and Information System (EOSDIS) is a highly specialized system designed to support NASA's Earth Science research community. It also provides complementary, near real-time science data for operational use by other agencies. EOSDIS processes, archives, and distributes Earth science data from NASA missions. Data are processed at near real-time rates or faster to support NASA's field campaigns that require processed scientific products in near real-time to coincide with the measurements of field-deployed assets; to support benchmarking near real-time applications with operational agencies such as NOAA (weather models), DoD (field conditions), and DoI (forest fire information); and to support processing into higher level, discipline unique scientific products, archived for future use without building a processing backlog. Unique scientific products generated by EOSDIS need to be periodically reprocessed due to changes in instrument characteristics and improvements to scientific algorithms. This involves reprocessing the entire missions' data within short periods of time, requiring systems that must operate many times faster than real-time rates. This system provides discipline unique tools, search capabilities and sub-setting capabilities built around the specific science, e.g., land processes, snow and ice, atmospheric composition, physical oceanography and geodesy. The majority of the EOSDIS software is custom code, utilizing unique algorithms to accommodate the different instrumentation and science disciplines. The unique nature of the scientific

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applications as well as the high-speed capabilities needed to manage the processes involved in automatically generating the scientific products ensures that they can be instantaneously searched and accessed in order to distribute them to a broad, multidisciplinary user community on a daily basis. EOSDIS' expected accomplishments in FY12, FY13, and FY14 are to collect data from the current missions, process all data at keep-up rates, and distribute science data and science data products to research and applications users. EOSDIS is in its operational phase supporting all EOS missions. At the end of FY11, EOSDIS archives held 5.8 petabytes of data, growing at ~1.7 terabytes per day and supporting distribution to users at ~13 terabytes/day. EOSDIS distributed over 500 million products (data files) to users in FY11.

2. **How does this investment close in part or in whole any identified performance gap in support of the mission delivery and management support areas? Include an assessment of the program impact if this investment isn't fully funded.**
    The Earth science program data system has no performance gaps. The program impact if this investment is not fully funded is the Earth science community would not have the necessary science data and science data products for research.

3. **Provide a list of this investment's accomplishments in the prior year (PY), including projects or useful components/project segments completed, new functionality added, or operational efficiency achieved.**
    EOSDIS provided end-to-end capabilities to deliver science data and information products to users, maximizing Earth science data distribution. EOSDIS is on target to meet performance goals of distributing over 480 M products in FY2012. EOSDIS' latest ACSI score of 77 exceeded the average federal government score of 67 reported in January 2012, indicating a high degree of customer satisfaction with EOSDIS.

4. **Provide a list of planned accomplishments for current year (CY) and budget year (BY).**

    EOSDIS will continue science operations by providing science data processing, data management, interoperable distributed data archives, on-line data access services, Earth science discipline-oriented user services, and network data transport to distributed system elements.

5. **Provide the date of the Charter establishing the required Integrated Program Team (IPT) for this investment. An IPT must always include, but is not limited to: a qualified fully-dedicated IT program manager, a contract specialist, an information technology specialist, a security specialist and a business process owner before OMB will approve this program investment budget. IT Program Manager, Business Process Owner and Contract Specialist must be Government Employees.**

1989-06-05

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Section C: Summary of Funding (Budget Authority for Capital Assets)

1.

Table I.C.1 Summary of Funding				
	PY-1 & Prior	PY 2011	CY 2012	BY 2013
Planning Costs:	$0.0	$0.0	$0.0	$0.0
DME (Excluding Planning) Costs:	$1,571.5	$0.0	$0.0	$0.0
DME (Including Planning) Govt. FTEs:	$0.0	$0.0	$0.0	$0.0
Sub-Total DME (Including Govt. FTE):	$1,571.5	0	0	0
O & M Costs:	$2,064.6	$110.7	$122.7	$122.9
O & M Govt. FTEs:	$54.8	$6.0	$7.6	$7.7
Sub-Total O & M Costs (Including Govt. FTE):	$2,119.4	$116.7	$130.3	$130.6
Total Cost (Including Govt. FTE):	$3,690.9	$116.7	$130.3	$130.6
Total Govt. FTE costs:	$54.8	$6.0	$7.6	$7.7
# of FTE rep by costs:	389	44	54	51

Total change from prior year final President's Budget ($)		$2.6	$6.4	
Total change from prior year final President's Budget (%)		2.28%	5.20%	

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2. If the funding levels have changed from the FY 2012 President's Budget request for PY or CY, briefly explain those changes:

The increase in FY12 is being utilized to offset the lower funding level in FY13 in order to avoid significant cuts in project activities.

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Section D: Acquisition/Contract Strategy (All Capital Assets)

Contract Type	EVM Required	Contracting Agency ID	Procurement Instrument Identifier (PIID)	Indefinite Delivery Vehicle (IDV) Reference ID	IDV Agency ID	Solicitation ID	Ultimate Contract Value ($M)	Type	PBSA ?	Effective Date	Actual or Expected End Date
Awarded		NNG10HP02C									
Awarded		NNG08HZ04C									
Awarded		NNG08HZ07C									
Awarded		NNG08HZ11C									
Awarded		NNG04HZ08C									

Table I.D.1 Contracts and Acquisition Strategy

2. If earned value is not required or will not be a contract requirement for any of the contracts or task orders above, explain why:
EVM is not appropriate for the instruments noted above.   In all cases the contracts are at a dollar value where EVM would not be cost effective or feasible. The project is in steady state operations mode and nearly all of our activities are driven by Level of Effort. EVM on those tasks or contracts would not provide any additional insight or value. The progress on the operational activities is monitored through regular communications between responsible managers from the ESDIS Project and the performing entities – the EOSDIS Evolution and Development contractor (Item 1), the Data Centers (Items 2, 3, and 4 for non-NASA Data Centers), and the Science Investigator-led Processing Systems (SIPSs – item 5 for a non-NASA SIPS). Progress is tracked through regular meetings and reports. During the earlier years in the Project when the development was the dominant part of the Project, and a major contract was in effect for the development of the EOSDIS Core System (ECS), the Project used EVM for that contract. The current acquisition strategy is commensurate with the current mix of development and operations. The ESDIS Project is responsible for integrating the results from all these activities and ensuring that NASA's objectives for EOSDIS are met. Multiple, small activities are considered the least risky approach at this stage of the life cycle of EOSDIS.

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Exhibit 300B: Performance Measurement Report

Section A: General Information

Date of Last Change to Activities: 2011-10-27

Section B: Project Execution Data

Table II.B.1 Projects					
Project ID	Project Name	Project Description	Project Start Date	Project Completion Date	Project Lifecycle Cost ($M)
60828	FY11 Continuing Science Operations	Science Operations reported on the IT Dashboard. Included to allow closeout of FY11 per OMB guidance.			

Activity Summary								
Roll-up of Information Provided in Lowest Level Child Activities								
Project ID	Name	Total Cost of Project Activities ($M)	End Point Schedule Variance (in days)	End Point Schedule Variance (%)	Cost Variance ($M)	Cost Variance (%)	Total Planned Cost ($M)	Count of Activities
60828	FY11 Continuing Science Operations							

Key Deliverables							
Project Name	Activity Name	Description	Planned Completion Date	Projected Completion Date	Actual Completion Date	Duration (in days)	Schedule Variance (in days)	Schedule Variance (%)
NONE								

Section C: Operational Data

<table>
<tr><td colspan="9" align="center">**Table II.C.1 Performance Metrics**</td></tr>
<tr>
<th>Metric Description</th>
<th>Unit of Measure</th>
<th>FEA Performance Measurement Category Mapping</th>
<th>Measurement Condition</th>
<th>Baseline</th>
<th>Target for PY</th>
<th>Actual for PY</th>
<th>Target for CY</th>
<th>Reporting Frequency</th>
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<tr>
<td>EOSDIS average American Customer Satisfaction Index (ACSI) score</td>
<td>Index</td>
<td>Customer Results - Customer Benefit</td>
<td>Over target</td>
<td>68.000000</td>
<td>68.000000</td>
<td></td>
<td>68.000000</td>
<td>Semi-Annual</td>
</tr>
<tr>
<td>Number of distinct products distributed in the FY</td>
<td>Count</td>
<td>Customer Results - Timeliness and Responsiveness</td>
<td>Over target</td>
<td>3700.000000</td>
<td>3700.000000</td>
<td>5109.000000</td>
<td>3700.000000</td>
<td>Semi-Annual</td>
</tr>
<tr>
<td>Number of products distributed</td>
<td>Count</td>
<td>Technology - Information and Data</td>
<td>Over target</td>
<td>12000000.000000</td>
<td>12000000.000000</td>
<td>41713020.000000</td>
<td>12000000.000000</td>
<td>Monthly</td>
</tr>
<tr>
<td>Cost per Earth science data product (in the form of computer files) distributed to users</td>
<td>Dollar per product</td>
<td>Process and Activities - Financial</td>
<td>Under target</td>
<td>0.770000</td>
<td>0.770000</td>
<td>0.230000</td>
<td>0.770000</td>
<td>Semi-Annual</td>
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<tr>
<td>Ratio of distributed volume to archive volume</td>
<td>Number</td>
<td>Technology - Information and Data</td>
<td>Over target</td>
<td>2.400000</td>
<td>2.400000</td>
<td>3.380000</td>
<td>2.400000</td>
<td>Semi-Annual</td>
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